

Comparisons of Job Characteristics

Focus Occupation: Geographers (19-3092)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 49

Focus Occupation: Geographers (19-3092)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	17.8	3.4	<<	Extensive education and/or training may be required
Geography	3.9	17.4	24.8	>>	Current knowledge level is likely more than sufficient
Mathematics	9.2	16.0	12.5	<<	Extensive education and/or training may be required
Computers and Electronics	8.4	15.0	15.0	0	Current knowledge level may be sufficient
Physics	4.3	14.4	5.0	<<	Extensive education and/or training may be required
Chemistry	4.8	10.3	4.8	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Geographers (19-3092)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Reading Comprehension	10.7	16.0	15.1	0	Current skill level may be sufficient
Science	4.5	15.1	13.8	0	Current skill level may be sufficient
Active Listening	11.0	13.6	12.6	0	Current skill level may be sufficient
Complex Problem Solving	9.1	11.9	11.8	0	Current skill level may be sufficient
Mathematics	6.2	9.4	9.6	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 98			
Focus Occupation: Geographers (19-3092)					
Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	16.0	14.4	<	Some improvement in abilities may be required
Written Expression	9.8	14.2	15.2	0	Current ability level may be sufficient
Inductive Reasoning	10.2	13.2	13.5	0	Current ability level may be sufficient
Deductive Reasoning	10.6	13.0	12.8	0	Current ability level may be sufficient
Near Vision	11.1	12.8	13.3	0	Current ability level may be sufficient
Category Flexibility	9.0	12.3	12.8	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	10.3	10.6	0	Current ability level may be sufficient
Flexibility of Closure	7.8	10.1	9.7	0	Current ability level may be sufficient
Number Facility	6.3	9.1	10.6	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 95
Focus Occupation: Geographers (19-3092) Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)		
Work Activities	Exclusivity of Activity	
Advise clients or customers	19	
Advise governmental or industrial personnel	28	
Analyze ecosystem data	69	
Analyze geological research data	87	
Analyze scientific research data or investigative findings	27	
Classify plants, animals, or other natural phenomena	69	
Collect geographic or physical data	81	
Collect scientific or technical data	30	
Collect statistical data	47	
Communicate technical information	4	
Conduct field research or investigative studies	52	
Conduct geological surveys	89	
Confer with research personnel	50	
Confer with scientists	54	
Develop or maintain databases	30	

Develop policies, procedures, methods, or standards	21
Develop scientific or mathematical hypotheses, theories, or laws	62
Develop tables depicting data	33
Direct and coordinate activities of workers or staff	3
Direct and coordinate scientific research or investigative studies	27
Draw maps or charts	69
Draw prototypes, plans, or maps to scale	57
Explain complex mathematical information	30
Identify properties of rocks or minerals	85
Interpret aerial photographs	69
Make decisions	24
Make presentations	13
Perform statistical analysis in physical science or geological research	71
Plan scientific research or investigative studies	48
Prepare environmental impact or related environmental reports	81
Prepare reports	8
Prepare technical reports or related documentation	22
Present research papers or dissertations on physical science issues	78
Read maps	42
Recommend further study or action based on research data	60
Use computer aided drafting or design software for design, drafting, modeling, or other engineering tasks	58
Use computers to enter, access or retrieve data	3
Use drafting or mechanical drawing techniques	50
Use field notes in technical drawings	78
Use geographic positioning system (GPS)	81
Use geographical information system (GIS) software	72
Use knowledge of investigation techniques	16
Use library or online Internet research techniques	21
Use mathematical or statistical methods to identify or analyze problems	30
Use measuring instruments to collect geological data	89
Use physical science research techniques	68
Use project management techniques	47
Use quantitative research methods	35
Use relational database software	26
Use scientific research methodology	21
Use spreadsheet software	18
Use word processing or desktop publishing software	17
Write research or project grant proposals	33
Write scholarly or technical research papers	36

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

**Similarity of Focus
Occupation to Associated
Occupation: 88**

Focus Occupation: Geographers (19-3092)**Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)**

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Cameras	2
Chromatographic measuring instruments and accessories	16
Computer data input devices	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Crystallography equipment	23
Cutting equipment	56
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Forestry machinery and equipment	31
Geophysical and geotechnical instruments	23
Hydrological instruments	31
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory boring and grinding and cutting and crushing and pressing equipment	27
Laboratory centrifuges and accessories	13
Laboratory enclosures and accessories	17
Laboratory furnaces and accessories	26
Laboratory mixing and stirring and shaking equipment and supplies	19
Laboratory ovens and accessories	15
Laboratory sieves and sifting equipment and supplies	27
Land surveying instruments	19
Length and thickness and distance measuring instruments	2
Measuring and layout tools	3
Network applications software	1
Radar and sonar systems and components	24
Rock drills	56
Sampling equipment	12
Seismological instruments	56
Soil measuring equipment	20
Specialized and recreational vehicles	17
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.